

REMARKS

Applicants appreciate the Examiner's thorough consideration provided the present application. Claims 1-12 are now present in the application. Claims 1, 2, 4, 7 and 10 have been amended. Claims 1, 4, 7 and 10 are independent. Reconsideration of this application, as amended, is respectfully requested.

Reasons For Entry Of Amendments

As discussed in greater detail hereinafter, Applicants respectfully submit that the rejections under 35 U.S.C. § 103(a) are improper and should immediately be withdrawn. Accordingly, the finality of the Final Office Action mailed on May 2, 2005 should be withdrawn.

In addition, this Amendment is merely made to address the Examiner's objection. Therefore, it is believed that no new issue should be raised. In accordance with the requirements of 37 C.F.R. §1.116, Applicants respectfully request entry and consideration of the foregoing amendments as they remove issues for appeal.

Claim Objections

Claims 1-12 been objected to due to the presence of minor informalities. In view of the foregoing amendments, it is respectfully submitted that this objection has been addressed. Reconsideration and withdrawal of this objection are respectfully requested.

Claim Rejections Under 35 U.S.C. § 103

Claims 1, 3 and 7-9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ishii, U.S. Patent No. 6,529,448, in view of Evans, U.S. Patent No. 5,051,950. Claim 2 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Ishii in view of Evans, and further in view of Mitsuoka, WO 99/59147. Claims 4-6 and 10-12 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Watanabe, U.S. Patent No. 5,784,343, in view of Ishii and Evans. These rejections are respectfully traversed.

Independent claims 1 and 4 recite “a pair of conductive wires extended from the signal-writing unit...the ends of the pair of conductive wires being separated by a gap, the voltage applied by the signal-writing unit on the pair of conductive wires generating an electric field around the gap so as to polarize the data-storing surface on the disk to write the data”. Independent claim 1 further recites “the ends of the pair of conductive wires being approached to the data-storing surface to induce polarization of the data-storing surface and the electric signals read from the disk being transmitted to the signal-processing unit.”

Independent claims 7 and 10 recite “exerting a voltage on a pair of conductive wires on the pick-up head while writing, thereby generating an electric field between the pair of conductive wires”, “approaching the electric field to the disk so as to polarize a data-storing surface made by the ferroelectric material to write down the data”. Independent claim 7 further recites “utilizing the ends of the pair of conductive wires to induce the polarized electric charges on the data-storing surface”.

Applicants respectfully submit that the above combinations of elements and steps as set forth in independent claims 1, 4, 7 and 10 are not disclosed nor suggested by the references relied on by the Examiner.

Ishii merely discloses a magnetic-optical-writing and optical-reading device. Unlike Ishii, claims 1 and 7 are directed to an electric-writing and electric-reading apparatus and method; claims 4 and 10 are directed to an electric-writing and optical-reading apparatus and method

In particular, Ishii discloses a magnetic coil 21 for a magnetic head 1. For the magnetic-optical writing process, Ishii in col. 7, lines 63-67 and col. 8, lines 1-13 discloses that the magnetic head drive circuit 6 supplies a current modulated by the recording signal to the coil 21 of the magnetic head 1. A magnetic field modulated by the information signal is generated from the distal end of the magnetic pole p1 of the magnetic head 1, and vertically applied to the magnetic recording layer 13 of the magneto-optical disk 11. At the same time, the laser source of the optical head 2 emits a laser beam upon reception of a current from the laser drive circuit 8. The laser beam converges into a small light spot by the optical system to irradiate the magnetic field application region of the magnetic recording layer 13. As a result, a magnetized region whose magnetization direction changes in correspondence with a change in the direction of an applied magnetic field is formed on the magnetic recording layer 13, thereby recording the information signal.

Ishii merely discloses a single magnetic coil 21. Although the Examiner referred to the gap P2 in FIG 4 of Ishii as the gap as recited in claims 1, 4, 7 and 10, the gap P2 is just a loop hole formed by the single magnetic coil 21. Therefore, Ishii fails to teach “the

ends of the pair of conductive wires being separated by a gap” as recited in claims 1, 4, 7 and 10.

In addition, as mentioned, Ishii discloses a magnetic field modulated by the information signal is generated from the distal end of the magnetic pole p1 of the magnetic head 1, and vertically applied to the magnetic recording layer 13 of the magneto-optical disk 11. Ishii nowhere teaches applying a voltage on the pair of conductive wires to generate an electric field around the gap P2 as recited in claims 1, 4, 7 and 10.

Furthermore, as shown in FIG. 3, Ishii discloses using the optical head 2 and the information signal reproducing circuit 10 to read the data. In other words, Ishii uses an optical-reading device to read the data. Since Ishii fails to teach electric reading, Ishii also fails to teach “the ends of the pair of conductive wires being approached to the data-storing surface to induce polarization of the data-storing surface and the electric signals read from the disk being transmitted to the signal-processing unit” as recited in claim 1 and “utilizing the ends of the pair of conductive wires to induce the polarized electric charges on the data-storing surface” as recited in claim 7.

With regard to the Examiner’s reliance on Evans, Mitsuoka and Watanabe, these references also fail to disclose the above combinations of elements and steps as set forth in amended independent claims 1, 4, 7 and 10. Accordingly, these references fail to cure the deficiencies of Ishii.

Accordingly, none of the references utilized by the Examiner individually or in combination teach or suggest the limitations of independent claims 1, 4, 7 and 10 or their

dependent claims. Therefore, Applicants respectfully submit that all of the claims clearly define over the teachings of the references relied on by the Examiner.

Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103 are respectfully requested.

CONCLUSION

Since the remaining patents cited by the Examiner have not been utilized to reject the claims, but merely to show the state of the prior art, no further comments are necessary with respect thereto.

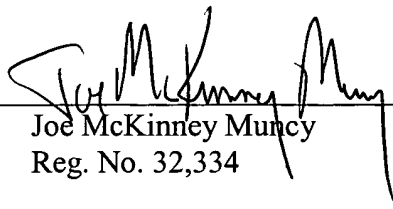
It is believed that a full and complete response has been made to the Office Action, and that as such, the Examiner is respectfully requested to send the application to Issue.

In the event there are any matters remaining in this application, the Examiner is invited to contact Joe McKinney Muncy, Registration No. 32,334 at (703) 205-8000 in the Washington, D.C. area.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

BIRCH, STEWART, KOLASCH & BIRCH, LLP

By 
Joe McKinney Muncy
Reg. No. 32,334

KM/GH/mmi
3313-0444P



P. O. Box 747
Falls Church, VA 22040-0747
(703) 205-8000